

ABSTRACT OF THE DISCLOSURE

Disclosed is an apparatus for controlling wavelength-division-multiplexed light wherein overall power of wavelength-division-multiplexed light is rendered constant through control for uniformizing the level of only one wave of maximum power, and wherein the levels of respective channels are made substantially uniform. Optical level control means controls the optical level of propagating wavelength-division-multiplexed light, and a portion of the wavelength-division-multiplexed light output from the output level control means is branched to a tunable optical filter, which selectively outputs the light of each wavelength contained in the wavelength-division-multiplexed light. The light of each wavelength output from the optical filter is photoelectrically converted to an electric signal by photoelectric conversion means. Peak detection means detects the maximum peak value of the electric signal output from the photoelectric conversion means, and a feedback signal is input to the optical level control means in such a manner that the maximum peak value becomes a set value.